IN THE CLAIMS:

1. (Original) A method for screening a plurality of phage-displayed antibodies for an ability to bind to a radiation-inducible neoantigen present on a cell, the method comprising:
   (a) contacting the cell with a first solution, the first solution comprising the plurality of phage-displayed antibodies;
   (b) isolating a second solution, the second solution comprising those phage-displayed antibodies that do not bind to the cell;
   (c) removing any phage-displayed antibodies bound to the cell;
   (d) treating the cell with radiation, wherein the treating results in a radiation-inducible neoantigen being present on the cell;
   (e) contacting the cell with the second solution; and
   (f) detecting binding of a phage-displayed antibody to the radiation-inducible neoantigen on the cell.

2. (Original) The method of claim 1, wherein the plurality of phage-displayed antibodies comprise a phage-displayed single chain variable fragment (scFv) library or a phage-displayed Fab library.

3. (Original) The method of claim 1, wherein the phage-displayed antibodies are humanized.

4. (Original) The method of claim 1, wherein the phage-displayed antibody is encoded by a nucleic acid encoding a single chain variable fragment (scFv) antibody having an amino acid sequence selected from the group consisting of SEQ ID NOs: 18, 20, 22, and 24, or by a nucleic acid sequence that is selected from the group consisting of SEQ ID NOs: 17, 19, 21, and 23.

5. (Original) The method of claim 1, wherein the phage-displayed antibody has an amino acid sequence that is selected from the group consisting of SEQ ID NOs: 18, 20, 22, and 24.

6. (Original) The method of claim 1, wherein the phage-displayed antibody further comprises an epitope tag.

7. (Original) The method of claim 6, wherein the epitope tag is selected from the group consisting of a c-myc tag and a histidine tag.

8. (Original) The method of claim 1, wherein the cell is selected from the group consisting of a tumor cell and a vascular endothelial cell.

9. (Original) The method of claim 8, wherein the vascular endothelial cell is present within tumor microvasculature.

10. (Original) The method of claim 1, wherein the radiation-inducible neoantigen is selected from the group consisting of P-selectin, E-selectin, Endoglin, $\alpha_{2b}\beta_3$ integrin, and $\alpha_v\beta_3$ integrin.

11. (Original) The method of claim 1, wherein the detecting is by a technique selected from the group consisting of ELISA, BIACORE, Western blotting, immunohistochemistry, fluorometric microvolume assay technology, mass spectroscopy, MALDI-MS, and MALDI-TOF.

12-50. (Canceled)

51. (Original) A method for prioritizing the binding of a plurality of antibodies or antibody fragments to a target tissue in a subject, the method comprising:

(a) providing a plurality of antibodies or antibody fragments that bind to the target, wherein the plurality of antibodies or antibody fragments comprise

at least two different antibodies or antibody fragments that bind a radiation-inducible neoantigen within the target tissue, and wherein the at least two different antibodies or antibody fragments are distinguishable from each other;

(b) irradiating the target tissue, whereby the radiation-inducible neoantigens are expressed within the target tissue;

(c) administering the plurality of antibodies or antibody fragments to the subject under conditions sufficient to allow the plurality of antibodies or antibody fragments to bind to the radiation-inducible neoantigen in the target tissue;

(d) isolating a portion of the target tissue from the subject, wherein the portion comprises the radiation-inducible neoantigens to which the plurality of antibodies or antibody fragments bind;

(e) identifying the at least two different antibodies or antibody fragments in the portion of the target tissue;

(f) comparing a relative selectivity and an affinity for the radiation-inducible neoantigens of the at least two different antibodies or antibody fragments identified in step (e) in the irradiated target tissue; and

(g) assigning a priority to the at least two different antibodies or antibody fragments based on the comparing of step (f).

52. (Original) The method of claim 51, wherein the subject is a mammal.

53. (Original) The method of claim 51, wherein the target tissue is a tumor or tumor vasculature.

54. (Original) The method of claim 51, wherein the antibodies or antibody fragments are single chain fragment variable (scFv) antibodies, Fab antibodies, or combinations thereof.

55. (Original) The method of claim 54, wherein the antibodies or antibody fragments are humanized.

56. (Original) The method of claim 51, wherein the at least two different antibodies or antibody fragments that bind to at least two different radiation-inducible neoantigens are distinguishable from each other based upon differences in molecular weight.

57. (Original) The method of claim 51, wherein the at least two different antibodies or antibody fragments that bind to at least two different radiation-inducible neoantigens within the target tissue each further comprises a different detectable label, such that the antibodies or antibody fragments that bind to different radiation-inducible neoantigens can be distinguished from each other.

58. (Original) The method of claim 57, wherein the different detectable labels are fluorescent labels, and each fluorescent label has a different excitation or emission spectrum, such that the different antibodies can be distinguished from each other.

59. (Original) The method of claim 51, wherein the at least two radiation-inducible neoantigens within the target tissue are selected from the group consisting of P-selectin, E-selectin, Endoglin, $\alpha_{2b}\beta_3$ integrin, and $\alpha_v\beta_3$ integrin.

60. (Original) The method of claim 51, wherein the administering is by intravenous injection or intratumoral injection.

61. (Original) The method of claim 51, wherein the portion is a tumor biopsy.

62. (Original) The method of claim 51, wherein the detecting is by mass spectroscopy.

63. (Canceled)

64. (Original) The method of claim 52, wherein the antibody or antibody fragment is a single chain fragment variable (scFv) antibody or an Fab antibody.

65-66. (Canceled)